



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels, Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

Date: October 9, 2008

To: Interested Parties

From: Bruce H Palin *BHP*  
Assistant Commissioner  
Office of Land Quality

Subject: Concentrated Animal Feeding Permits

The Indiana Department of Environmental Management (IDEM) is notifying Andrews Dairy, LLC, that they have satisfied the requirements to receive coverage under an Individual National Pollution Discharge Elimination System (NPDES) permit. The permit authorizes the construction and expansion of the dairy operation.

Please find enclosed a copy of the notice of decision and a response to public comments that was prepared based on questions and concerns received by IDEM relative to the operation. Copies of the individual NPDES permit and briefing memo can be viewed at the following agency web site:

<http://www.IN.gov/idem/land/permits/notices/index.html> and the virtual file cabinet section.

If you have any questions relative to the notice please contact Mr. Daniel Bruggen at (317) 233-3554, or toll free at (800) 451-6027, extension 03-3554.

Please bring this matter to the attention of persons you believe may have an interest in it.

Enclosures: Notice of Decision  
Response to Public Comments

cc: Ted Dykstra- Andrews Dairy, LLC (with enclosures)  
Dave Gerdeman- North Point Engineering (with enclosures)  
Karen Miller- Vreba-Hoff Dairy Development, LLC (with enclosures)  
Brian Daggy- Agricultural Environmental Consulting, LLC (with enclosure)



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## NOTICE OF DECISION

### Indiana Department of Environmental Management

Please be advised that the Indiana Department of Environmental Management (IDEM), has issued an Individual NPDES Permit for Andrews Dairy, LLC, which is located near the intersection of County Road 200 South and State Road 105 in Huntington County, Indiana. This permit allows Andrews Dairy, LLC, to expand and operate a Concentrated Animal Feeding Operation that will include six confinement barns housing a total of 2,500 dairy cows, 50 dairy calves, a concrete silage pad, manure and wastewater collection and storage systems, a milking parlor, and offices.

If anyone wishes to challenge this decision, IC 13-15-6-1 and IC 4-21.5-3-7 require that they file a petition for administrative review not later than fifteen (15) days after being served with this notice. Under IC 13-15-6-7(c) you are considered to be served with this notice when you are personally served with the notice or three (3) days after the notice is deposited in the United States mail and addressed to you, whichever occurs first. Your petition describing your intent to challenge the IDEM decision must be submitted to the Office of Environmental Adjudication, Indiana Government Center North, 100 North Senate Avenue, Room N501, Indianapolis, Indiana 46204-2200.

Your filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing: (1) The date the document is delivered to the Office of Environmental Adjudication (OEA), (2) The date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail, or (3) The date on which the document is deposited with a private carrier, as shown by the receipt issued by the carrier, if the document is sent to the OEA by private carrier. This petition must include facts demonstrating that the petitioner is the applicant, a person aggrieved by the decision, or a person entitled to review by law.

Additionally, IC 13-15-6-2 requires that such petition for administrative review include: (1) The name and address of the person making the request, (2) The interest of the person making the request, (3) Identification of any persons represented by the person making the request, (4) The reasons, with particularity, for the request, (5) The issues, with particularity, proposed for consideration at the hearing, and (6) The permit terms and conditions which, in the judgment of the person making the request, would be appropriate.

Pursuant to IC 4-21.5-3-5(d), the Office of Environmental Adjudication will provide the petitioner or any person requesting notice with notice of pre-hearing conferences, preliminary hearings, hearing stays or orders disposing of the petition for review if a written request for such notice is submitted to the Office of Environmental Adjudication at the above address. If you have procedural or scheduling questions regarding your petition, you may contact OEA by dialing (317) 232-8591.

Questions regarding the technical aspects of the permit decision should be directed to Daniel Bruggen, by calling (800) 451-6027, press 0 and ask for extension 3-3554, or dial him direct at (317) 233-3554. Please bring this matter to the attention of persons you believe may have an interest in it.

**Indiana Department of Environmental Management  
Response to Public Comments  
Andrews Dairy, LLC  
NPDES CAFO Permit Application**

On March 6, 2008, Andrews Dairy, LLC, submitted to the Indiana Department of Environmental Management (IDEM) an application for a National Pollutant Discharge Elimination System, Concentrated Animal Feeding Operation (NPDES CAFO) individual permit. This existing dairy is requesting to construct a new manure and wastewater handling system and two new free stall barns. The dairy will be populated with 2,500 mature dairy cattle and 50 dairy calves.

IDEM received public comments concerning this application both in writing, by phone, at a public hearing held in Huntington on July 9, 2008 and during a public comment period. Similar comments have been consolidated and paraphrased into one comment for efficiency of response.

The following responses have been prepared by IDEM staff to address the concerns expressed.

1. **Comment:** There is a concern about the amount of waste this dairy may produce.

**Response:** The state regulations require these farms to be designed to provide for six months storage capacity of manure and wastewater. It also requires that farms have access to sufficient acreage to apply the manure at agronomic rates based on crop nutrient demand and soil fertility levels. This farm's waste storage system provides approximately one year of storage capacity and the farm has access to more than sufficient acreage for land applying manure and wastewater.

2. **Comment:** There is a concern that land application of manure will contaminate surface waters with increased nitrogen from manure runoff and have a negative impact to fish and other wildlife.

**Response:** Land application of the manure and wastewater in compliance with the permit conditions provides a high level of confidence that the potential of runoff and nutrient loss to surface waters will be minimized. These requirements include:

1. Do not land apply manure when the soil is saturated.
2. Monitor field nutrient levels as well as the manure nutrient content in order to land apply at agronomic rates.
3. Monitor rainfall predictions at least 24 hours in advance and 24 hours after any land application activities.
4. Implementation of a Soil Conservation Practice Plan on land application sites.
5. Maintain required setback distances from site features including field tile inlets, streams, ditches, ponds and wetlands.
6. Monitoring of field tiles that outlet under or bordering the land application sites during and after manure applications.
7. Document compliance with the above by keeping records for at least five years and made available to IDEM.

The Soil Conservation Practice Plan must be implemented on all manure application sites owned or controlled by the permittee. The plan must be written in accordance with USDA standards to minimize nutrient loss through leaching and runoff. The plan will address each field's limiting factors and what measures are needed to achieve the adopted performance standards. These measures are site specific and can include but are not limited to; timing of application (spring vs. fall), method of application, rate of application and the installation of erosion control practices and structures.

3. **Comment:** Groundwater quality will be impacted as a consequence of the dairy activities.

**Response:** Protecting the quality of ground water is also a major concern of IDEM. All of the state standards for design of waste storage structures, and the standards for land applying the manure are intended to provide a high level of protection of ground water quality. For this location and proposal, IDEM is requiring the installation of a ground water monitoring system at the production area. This provides the ability to measure the groundwater quality in close proximity to any manure or wastewater storage structures. The wells identified in the application are piezometers, which will be utilized to determine ground water flow direction. The final locations of the ground water monitoring wells are depicted on page 12 of 12, from the plans received by IDEM on June 5, 2008. The facility will be required by IDEM to sample all the ground water monitoring wells semi-annually. All ground water sampling and analysis results shall be submitted to IDEM within sixty (60) days of sampling.

4. **Comment:** Can IDEM adequately regulate, inspect, and monitor these facilities under the current rules?

**Response:** IDEM believes the current rules and regulatory program provide a great deal of oversight when it comes to issues that address protecting water quality. This oversight begins with design and construction requirements then continues with manure handling and land application activities and concludes with self monitoring and record keeping requirements, which are reviewed by our compliance staff during farm inspections. IDEM will provide appropriate oversight to assure the farm complies with the imposed requirements. IDEM will conduct inspections of the facility during construction and operation to assure compliance with the regulations and permit. Those inspections will also verify that self-inspections are being conducted by the permittee.

5. **Comment:** Concerned about health effects from pathogens found in manure.

**Response:** Properly land applied manure presents a minimal risk of pathogen exposure. Protecting water quality serves to minimize potential of any exposure to surface waters or groundwater containing manure pathogens. The application contains land use agreements and associated field maps documenting 2,234 tillable acres of farmland available for land application.

6. **Comment:** There is a concern that groundwater will be depleted by the dairy farm.

**Response:** The permittee will be conducting a pump test as part of the development of a ground water monitoring plan, which will determine the capacity and ability of the aquifer to provide the quantity of water needed. The Department of Natural Resources (DNR) administers state law IC 14-25 which address certain situations where a large well is adversely impacting other wells.

7. **Comment:** Several comments were received concerning airborne pollutants, odors, noise, and property values.

**Response:** IDEM is given the authority through legislation and the rules to regulate CAFOs based on water quality concerns. Other concerns relative to odors, traffic, property values, etc. are outside of IDEM's authority to address through the permitting process. Local land use ordinances must be relied upon to address those issues. There are currently no national or Indiana standards for odors. However, the US EPA is conducting a study of air emissions from animal feeding operations. The study will include what types of pollutants are present and the quantity released. Based on the results, EPA will give a recommendation on any permitting requirements that may be appropriate to address those emissions.

8. **Comment:** The Salamonie Reservoir is located near the dairy site and within the manure land applications sites, how is the over-application of manure controlled by IDEM?

**Response:** The requirements listed in response #2 are all good manure management practices that serve to minimize potential of runoff. The Soil Conservation Practice Plan must be implemented on all manure application sites owned or controlled by the applicant. The plan must be written in accordance with standards to minimize nutrient loss through leaching or runoff. The plan will address each field's limiting factors and what measures are needed to achieve the adopted performance standards. These measures are site specific and can include but are not limited to: timing application (spring vs. fall), method of application (injection vs. surface), rate of application, and installation of erosion control practices and structures.

NPDES permits for CAFO's provide a list of narrative water quality standards and are Clean Water Act permits. IDEM is the Clean Water Act permitting authority in Indiana. IDEM's Office of Water Quality, administers Indiana's water quality monitoring program. The 303d water quality assessment program provides a mechanism for IDEM to monitor water bodies within the state on a five year rotational basis. The results of the monitoring events are an inventory of water quality allowing the identification of waters being affected by current activities. These activities include negative water quality impacts from residential, municipal, industrial, agricultural and recreational areas. The Salamonie Reservoir is included in this ongoing water quality monitoring program.

9. **Comment:** How will waste/sand bedding be land applied? Who will inspect the land application areas to identify any field tile outlets under or immediately bordering the land application site? Will the applicant perform the inspection, or will that be contracted to someone else? How will IDEM gain access to the land application sites to perform their own inspection?

**Response:** Sand bedding and manure solids that are separated from the liquid collection system is applied to the surface of farm fields. Liquid manure may be applied to the ground surface or mixed into the soil immediately upon application using soil injection or equivalent method to apply the manure. IDEM historically has not dictated the method used for manure land application. The NPDES and CFO regulation was established with strict land application performance standards that must be met regardless of the method utilized. Many fields may be identified as potential land application sites, but not all will be used at once. The requirements are that the field tile outlets under or immediately bordering the land application sites be identified and monitored when the field is used. It is the permittees responsibility to comply with the permit conditions, whether it is done by the applicant personally, or by a contractor under this applicant's control. IDEM staff have the right to enter any of the applicants property or property used for land application to verify compliance with the regulations and the permit.

10. **Comment:** Why do the wash water calculations in the permit application appear to be 2 to 3 times less than what is actually expected.

**Response:** The application includes an allowance of 10.5 gallons per lactating cow per day as milk parlor waste water to be stored in the lagoons. Table 10 in the Midwest Plan Service publication 18 ("Manure Characteristics") identifies a daily waste water volume of 1.60 cubic feet (11.97 gallons) from the milk house, parlor and holding area. Chapter 4, "Agricultural Waste Characteristics", USDA Soil Conservation Service, Agricultural Waste Management Field Handbook, identifies an allowance of 5 to 10 gallons of water per day per cow from the milking center.

11. **Comment:** How will IDEM enforce application of manure for setbacks, surface water drainage, and tile system drainage?

**Response:** IDEM will be conducting inspections, which address all applicable requirements, including those affecting land application activities.

12. **Comment:** Why did the rainfall runoff calculations in the application have no data for snow melt contribution.

**Response:** The calculated runoff is based on 12 months (January through December), 365 days precipitation; wintertime precipitation is included in this volume.

13. **Comment:** How is the farm planning to manage dead animal disposal?

**Response:** IDEM does not require that farms detail their intent on mortality management. The State Board of Animal Health is responsible for regulating dead animal disposal. Disposal must be done by one of the following methods: 1) approved disposal plant; 2) burial with special rules; 3) complete incineration and 4) composting.

14. **Comment:** Who will be testing household wells to assure area residents that their drinking water is safe to drink? Who will be responsible if contamination occurs in wells in the area surrounding the dairy?

**Response:** IDEM encourage residents to contact their County Health Department to learn the correct procedures to test well water quality. If the dairy is found to be responsible for well contamination, they would be held responsible to correct the problem. IDEM encourages everyone using well water to test the quality of their water regardless of the location of activities near their property. Many residential features and activities in close proximity to a well, including malfunctioning septic tanks and leach fields, over application of lawn fertilizers/pesticides and improperly discarded household chemicals can be a source of well contamination.

15. **Comment:** The seepage rates of the lagoons do not appear to include any calculations for side wall seepage over the life of the facility. Neither IDEM nor the applicant has addressed the environment or public health impacts from such significant sources of pollution near private water wells or VERY nearby watersheds.

**Response:** The lagoons are designed with a two foot thick engineered fill re-compacted soil (clay) liner. The liner is designed to be continuous from the lagoon floor up the exterior side slope and from the lagoon floor through the interior berms to the adjacent lagoon floor. The calculated seepage rate is 5 times less than the limit allowed by IDEM's rule and is based on a maximum operating depth of 15.5 feet of liquid. Seepage through the exterior side slope should decrease from the floor to the top of the exterior berm as the depth of liquid decreases up the exterior side slope.

16. **Comment:** IDEM should not allow Andrews Dairy, LLC to land apply manure, litter or process wastewater to snow covered or frozen ground.

**Response:** IDEM concurs, therefore language in the NPDES Individual permit that would allow for land application of liquid manure or process wastewater to snow covered or frozen ground has been removed.

17. **Comment:** Why would IDEM consider Vrebra Hoff Dairy Development LLC as an acceptable candidate to take over this existing dairy that has caused numerous environmental violations. Vrebra Hoff has farms elsewhere in the Midwest that have caused water pollution problems and should not be allowed to operate in Indiana.

**Response:** IDEM has regulations that apply to confined feeding operations. These regulations cover a large range of issues pertaining to design, construction, and operation of CFOs/CAFOs. One of the criteria that was not incorporated into the rules were good character provisions. Currently, a farm proposed by someone who has caused environmental problems in Indiana or any other state can not be denied a permit on the basis that previous violations are indicative of the manner a new farm under their management would be operated. However, with an individual NPDES permit, IDEM has incorporated some operating restrictions that do reflect concerns stemming from problems encountered in the past at this location and other dairy farms.